

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/079077 A1

(51) International Patent Classification⁷: **H04N 7/50**

(21) International Application Number: **PCT/EP2004/013591**

(22) International Filing Date: 30 November 2004 (30.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 04 003 184.1 12 February 2004 (12.02.2004) EP

(71) Applicant (for all designated States except US): MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): WEDI, Thomas [DE/DE]; Aussiegerstr. 8, 64823 Gross-Umstadt (DE). WITTMANN, Steffen [DE/DE]; Hermesstr. 18, 63263 Neu-Isenburg (DE). SCHLOCKERMANN, Martin [DE/DE]; Lessingstr. 13, 63322 Roedelmark (DE).

(74) Agent: KAYSER, Andreas; Grünecker, Kinkeldey, Stockmair & Schwahnässer, Maximilianstrasse 58, 80538 München (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

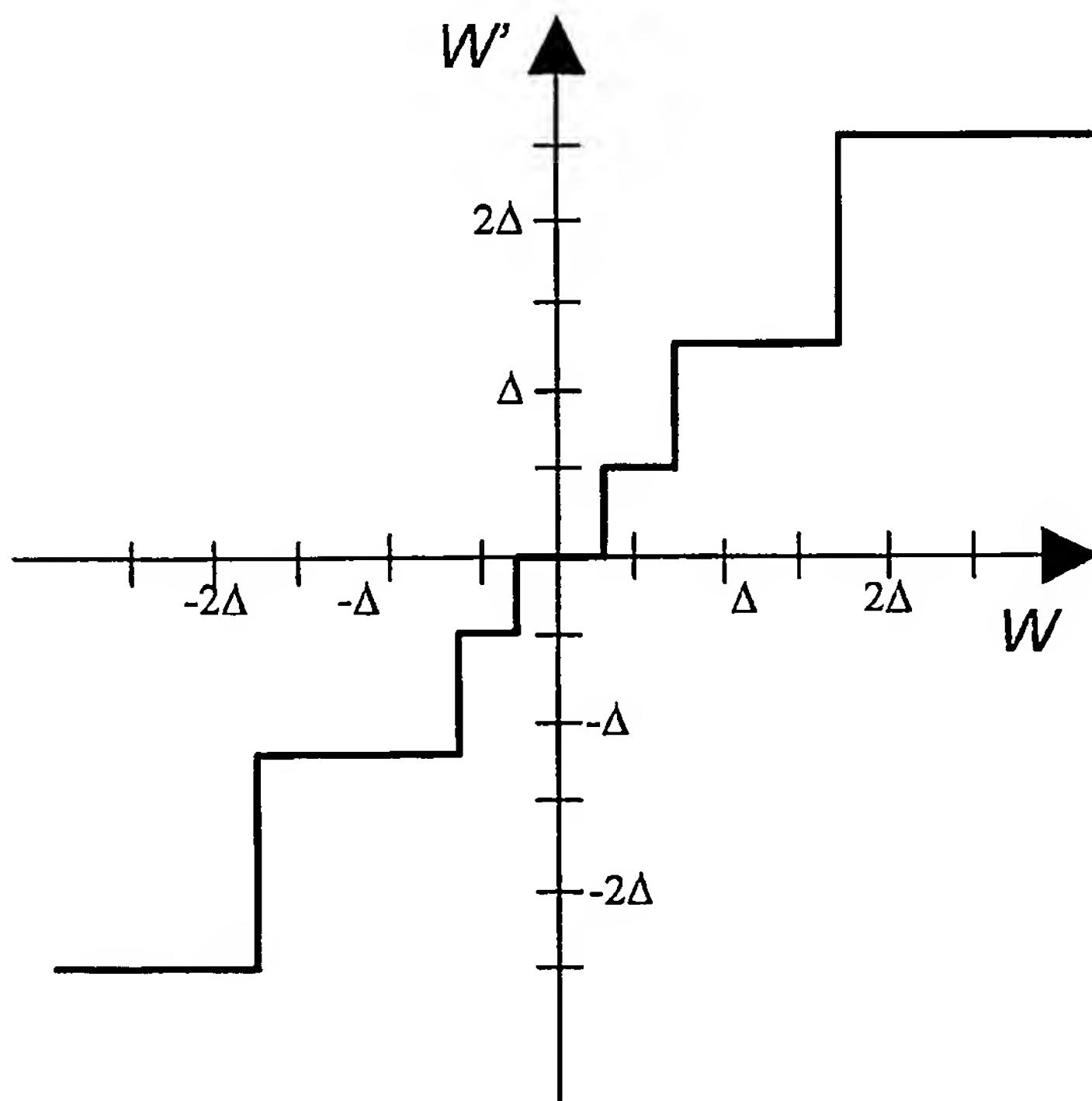
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: ENCODING AND DECODING OF VIDEO IMAGES BASED ON A NON-LINEAR QUANTIZATION



WO 2005/079077 A1



(57) Abstract: The present invention enables to adaptively shape the quantization intervals according to a non-linear quantization curve for encoding video data in order to better adapt the quantization process to film grain information without increasing the resulting bit rate while maintaining the coding efficiency.



Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.